



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/668,831	09/22/2000	Douglas W. Walker	135555-0262	2423
7590	05/18/2004		EXAMINER	
J. ANDREW LOWES HAYNES AND BOONE 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202-3789			DAVIS, DANIEL J	
		ART UNIT	PAPER NUMBER	
			3731	

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/668,831	WALKER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	D. Jacob Davis	3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) Responsive to communication(s) filed on 2/23/04.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-12 and 29-32 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5, 7, 8 and 32 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 3,550,280 to Palm in view of U.S. Patent No. 4,823,244 to Alaybayoglu et al.

Illustrated in Figs. 10, Palm discloses a handpiece having a tool supporting end and a battery receiving end. The electrical connection of the battery pack end piece 123 and the effecting end piece 16, as illustrated in Fig. 10, is similar to the electrical connection between the corded end piece 17 and the effecting end piece 16 of Fig. 2. Therefore, the electrical connection between the battery pack and the effecting end piece will be described as best illustrated in Figs. 1-2.

The battery receiving end of the handpiece 16 has an alignment post with circular electrical contacts 96 and 97 concentric to the post. There are gaps that separate the contacts and have substantially different widths. The attachment end of the battery pack comprises a second set of substantially concentrically arranged electrical contacts 36, 37, 41 and 42. The battery pack set of contacts "are lockingly and conductively

Art Unit: 3731

"interengaged" with the contacts 96a and 97a of handpiece 16 "upon engagement of the alignment post with the central opening and in response to rotation of the battery pack [123] relative to the handpiece [16]."

Furthermore, in Fig. 10, the battery receiving end of the handpiece comprises first and second flanges, which are the outer and most proximal rim of housing 21. Although the outer rim of housing 21 appears to be one monolithic piece, it may be considered that the device is divided into two halves, thus comprising two flanges. Likewise, the attachment end of the battery pack comprises third and fourth flanges 126 as illustrated in Fig. 10 (or 31 and 32 if viewing Fig. 2). The third and fourth flanges pass through the first and second gaps.

The battery pack 123 is connected to a handpiece 16 in the same manner as unit 17 in the embodiment of Figs. 1-2. Best illustrated in Figs. 1-2, Palm discloses a unit 17 (for which the battery pack 123 is substituted in Fig. 10) having circular electrical contacts 36, 37, 41, and 42 concentric with the alignment post. The contacts As the battery pack 123 and the handpiece 16 are rotated into position relative to one another, spring-supported contact 97a snaps into position, and inherently makes an audible noise once proper contact is achieved. The battery pack 123 further comprises a central opening through which the alignment post is positioned. As illustrated in Fig. 10, the handpiece 16 has flat end surfaces 76 which abut against flat surfaces of the battery pack. The flat surfaces of the battery pack are the surfaces of element 126.

Palm discloses the use of a rechargeable battery pack. However, the battery pack inherently could be used only once and then discarded. In this sense, it may be

referred to as a "single use" or "disposable" battery pack. In the alternative, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a non-rechargeable or "single use" battery pack since it is well known that single use, disposable batteries include "higher energy capacity per volume," "higher energy capacity per weight," "higher reliability," and "may be entered in the normal waste stream." Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a "single use, disposable battery pack" for the aforementioned reasons.

Palm's clippers may be considered a surgical tool. It is well known that tools intended for commercial (in other words industrial) use may also be used in surgery. A screwdriver sold in a hardware store may be used to insert a screw in bone, just as it may insert a screw in wood. A saw may be used to cut bone just it can cut wood. And a drill may bore a hole in a bone as it can bore a hole in wood. Likewise, Palm's clippers may be used in a surgical procedure just as they may be used to cut hair outside of surgery. Therefore, Palm's clippers may be considered a surgical instrument.

Since Palm's device is a surgical instrument, it absolutely, unequivocally, must be sterilized to prevent infection. However, sterilizing takes time away from an end user. So, Alaybayoglu teaches the use of a sterile container and battery pack, obviating the need of an end user to sterilize the battery pack before each surgical use. See col. 1, lines 59-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a single use sterile container for a battery

Art Unit: 3731

pack instead of a rechargeable battery pack, as taught by Alaybayoglu, in order to save time from sterilizing the battery pack.

With respect to claim 3, the claim generically recites a "surgical tool." Palm also discloses a surgical tool 62 and 63. The surgical tool is fully capable of, and therefore is "configured for performing a cutting operation on live human bone or live tissue."

Regarding claims 5 and 32, the particulars of the device as claimed in the body of the claim do not support the preamble. In other words, there are no positive structural limitations, such as a drill bit, or teeth in a saw, that are used to cut or shape bone. Therefore, all that is required to meet the functional limitations of the claim is that the device be *capable* of performing the requisite functional limitations. Although it would not be very effective, Palm's clippers *could* in fact be used to cut or shape "live human bone."

Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 3,550,280 to Palm in view of U.S. Patent No. 4,823,244 to Alaybayoglu et al. and further in view of admitted prior art. The manner in which the references meet the claim limitations has been set forth. However, Palm (or Alaybayoglu) fails to disclose the use of a battery pack having "chemistry based upon lithium/manganese dioxide." Nevertheless, applicants admit on page 10 of the specification that lithium/manganese dioxide batteries are known to have a long burn time and are standardized batteries. Therefore, their use in a disposable battery pack for a surgical instrument would have

Art Unit: 3731

been obvious to one of ordinary skill in the art at the time the invention was made because they are standardized batteries, known to have a long burn time.

Claims 1, 3-5, 7, 8-11 and 32 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,207,697 to Carusillo et al. in view of U.S. Patent No. 3,550,280 to Palm and in view of U.S. Patent No. 4,823,244 to Alaybayoglu et al. Carusillo discloses a surgical rotary drilling instrument in Figs. 1-2 comprising a separate non-circular battery pack 26 and handpiece 25. The battery pack may be used once and discarded. Therefore the battery pack is considered a "single use" battery pack.

The patent fails to disclose the specified electrical connection between the battery pack 26 and the handpiece 25 as recited in the claims. Nevertheless, Palm teaches an electrical connection between the effecting end and the battery pack as described in the rejection of claims 1, 3, 5, 7, 8 and 32 over Palm in view of Alaybayoglu. It would have been obvious to one of ordinary skill in the art at the time the invention was made to completely modify the connection between Carusillo's battery pack and handpiece as taught by Palm so that the upper part 25 of the battery pack 24 can be eliminated to reduce weight.

The Carusillo and Palm device fail to disclose a sterile package comprising a single use battery pack. Alaybayoglu teaches the use of a sterile container and battery pack, obviating the need of an end user to sterilize the battery pack before each surgical

Art Unit: 3731

use. See col. 1, lines 59-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a single use sterile container for a battery pack instead of a rechargeable battery pack, as taught by Alaybayoglu, in order to save time from sterilizing the battery pack.

Claims 2, 6, 12 and 29-31 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,207,697 to Carusillo et al. in view of U.S. Patent No. 3,550,280 to Palm and in view of U.S. Patent No. 4,823,244 to Alaybayoglu et al. and in further view of admitted prior art. The manner in which the references meet the claim limitations has been set forth. However, Carusill, Palm and Alaybayoglu fail to disclose the use of a battery pack having "chemistry based upon lithium/manganese dioxide." Nevertheless, Applicants admit on page 10 of the Specification that lithium/manganese dioxide batteries are known to have a long burn time and are standardized batteries. Therefore, their use in a disposable battery pack for a surgical instrument would have been obvious to one of ordinary skill in the art at the time the invention was made because they are standardized batteries, known to have a long burn time.

***Response to Arguments***

As described heretofore in the action, the Palm reference discloses flanges as Meeting the recited limitations of claim 1.

Palm discloses a device comprising a battery pack. The device may be considered a surgical device as explained. All surgical devices must be sterile. One of ordinary skill in the art would look throughout the entire surgical arena to learn of ways to efficiently sterilize a tool or battery pack used in surgery. Alaybayoglu teaches a sterile container to hold a disposable battery pack in order to save time for the end user. Therefore, the Palm and Alaybayoglu devices may be combined.

Palm does disclose that the entire unit is placed within the unit for recharging. However, the inventor obviously intended for the two units to be easily detachable otherwise the housing units would have been more permanently attached with screws, if not monolithic. Therefore, Palm discloses a detachable battery pack.

The end of surfaces 76 and 126 are flat and contact one another as illustrated in Fig. 10. Surface 76 is easily detachable from rear housing 123.

Examiner agrees that Palm, Alaybayoglu, and the admitted prior art fail to disclose, "a handpiece having a rotary driven drilling member supported by a tool supporting end." However, Carusillo, Palm, and Alaybayoglu meet this limitation and all other limitations of claims 11 and 29.

Clippers can certainly be used to create a cut within a bone if sufficient force is applied to the tips to drive, dig, or scrape along the bone.

Tools can be used for either surgical or commercial (industrial) practices (see the Abstract of U.S. Patent 6,010,508 to Badley). If one chooses to use an instrument in surgery, it may be applied in such a manner and sterilization is required.

### ***Conclusion***

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 3731

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. Jacob Davis whose telephone number is (703) 305-1232. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, McDermott or Shaver can be reached on (703) 308-0858. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DJD  
May 13, 2004



MICHAEL J. MILANO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700